

Silicon NPN Power Transistors

2SD1267 2SD1267A

DESCRIPTION

- With TO-220Fa package
- High forward current transfer ratio h_{FE} which has satisfactory linearity
- Low collector saturation voltage
- Complement to type 2SB942/942A

APPLICATIONS

- For power amplification

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

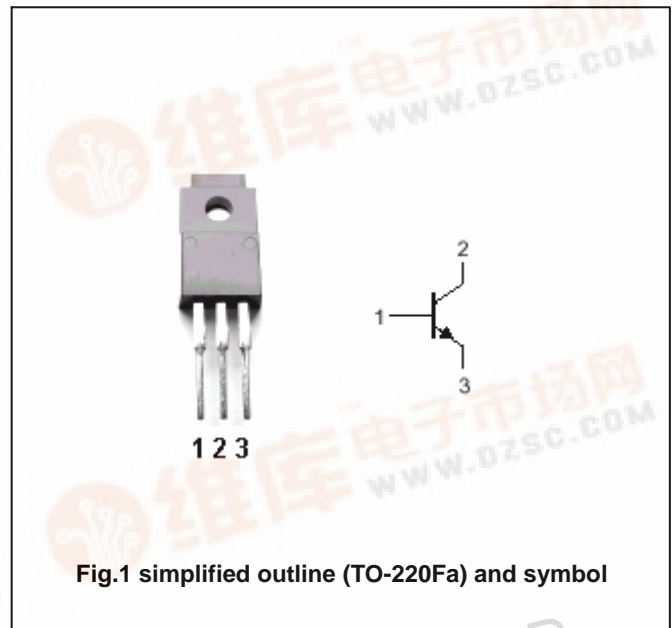


Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings($T_a=25$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT	
V_{CBO}	Collector-base voltage	Open emitter	2SD1267	60	V
			2SD1267A	80	
V_{CEO}	Collector-emitter voltage	Open base	2SD1267	60	V
			2SD1267A	80	
V_{EBO}	Emitter-base voltage	Open collector	5	V	
I_C	Collector current		4	A	
I_{CM}	Collector current-peak		8	A	
P_C	Collector power dissipation	$T_a=25$	2	W	
		$T_C=25$	40		
T_j	Junction temperature		150		
T_{stg}	Storage temperature		-55~150		

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO}	Collector-emitter voltage	2SD1267	I _C =30mA, I _B =0	60			V
		2SD1267A		80			
V _{CEsat}	Collector-emitter saturation voltage		I _C =4A, I _B =0.4A			1.5	V
V _{BE}	Base-emitter voltage		I _C =3A; V _{CE} =4V			2.0	V
I _{EBO}	Emitter cut-off current		V _{EB} =5V; I _C =0			1.0	mA
I _{CEO}	Collector cut-off current	2SD1267	V _{CE} =30V; I _B =0			0.7	mA
		2SD1267A	V _{CE} =60V; I _B =0				
I _{CES}	Collector cut-off current	2SD1267	V _{CE} =60V; V _{BE} =0			0.4	mA
		2SD1267A	V _{CE} =80V; V _{BE} =0				
h _{FE-1}	DC current gain		I _C =1A; V _{CE} =4V	70		250	
h _{FE-2}	DC current gain		I _C =3A; V _{CE} =4V	15			
f _T	Transition frequency		I _C =0.5A; V _{CE} =5V, f=1MHz		20		MHz

Switching times

t _{on}	Turn-on time	I _C =4A; I _{B1} =-I _{B2} =0.4A V _{CC} =50V		0.4		μs
t _{stg}	Storage time			1.5		μs
t _f	Fall time			0.5		μs

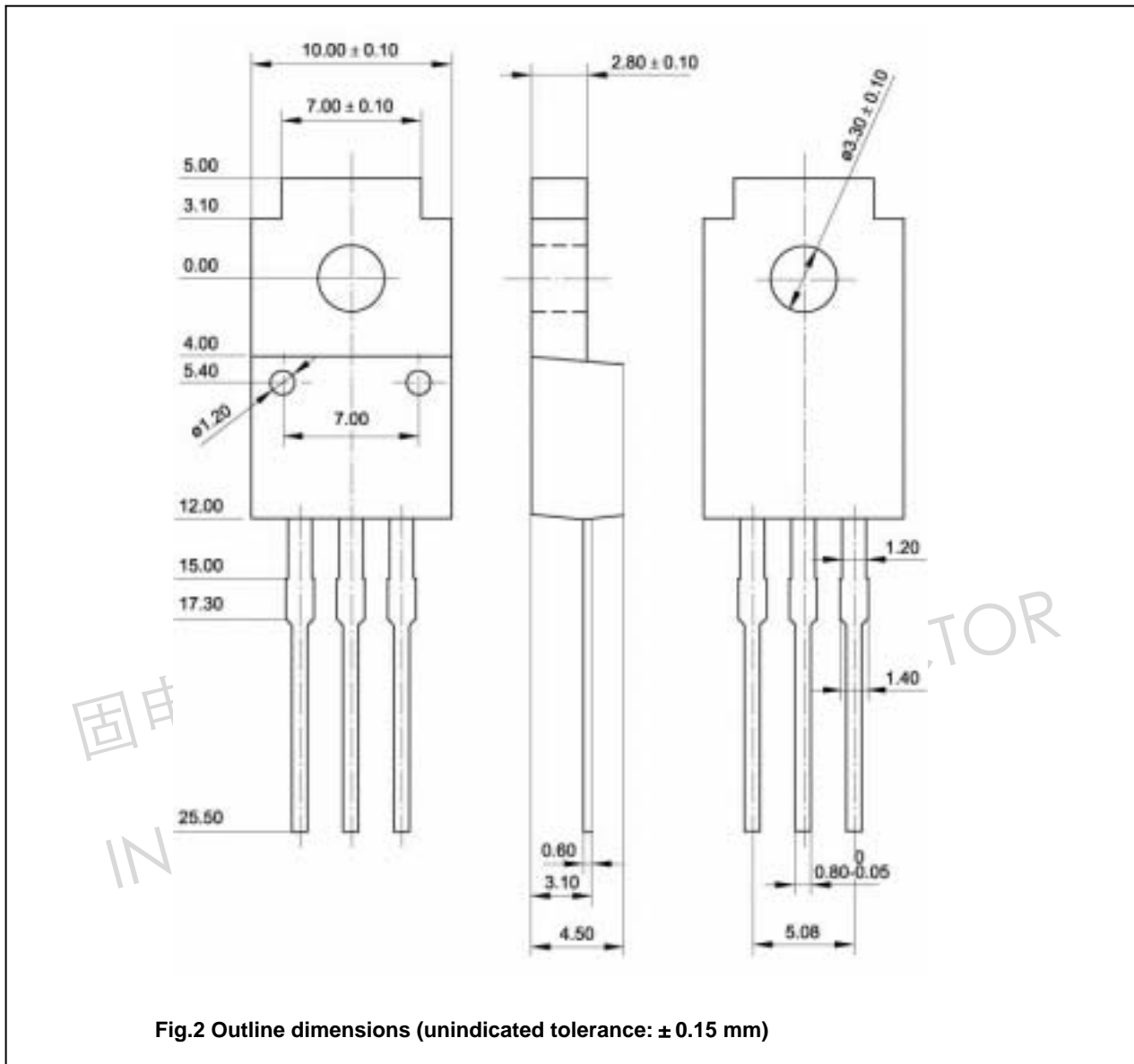
◆ h_{FE-1} Classifications

Q	P
70-150	120-250

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PACKAGE OUTLINE



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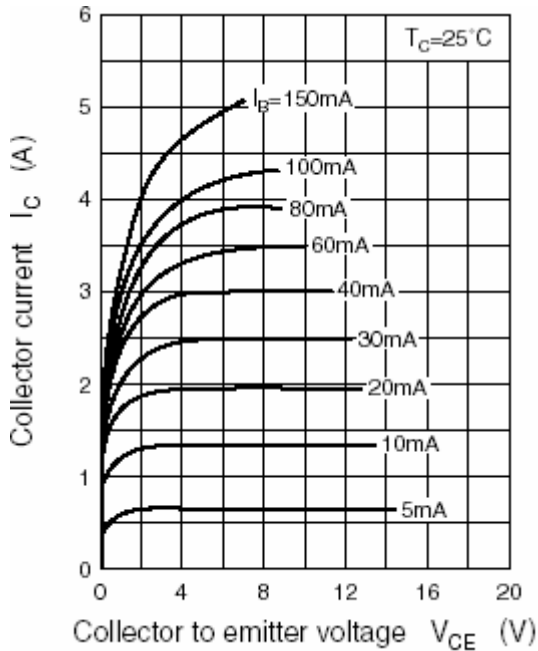


Fig.3 Static Characteristic

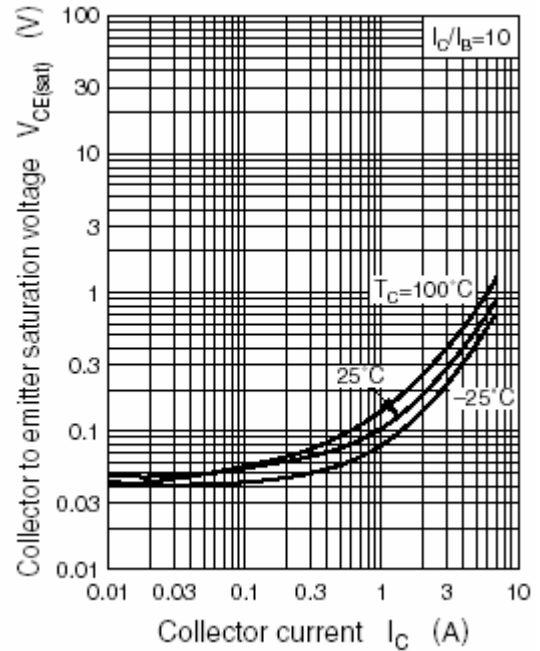


Fig.4 Collector-Emitter Saturation Voltage

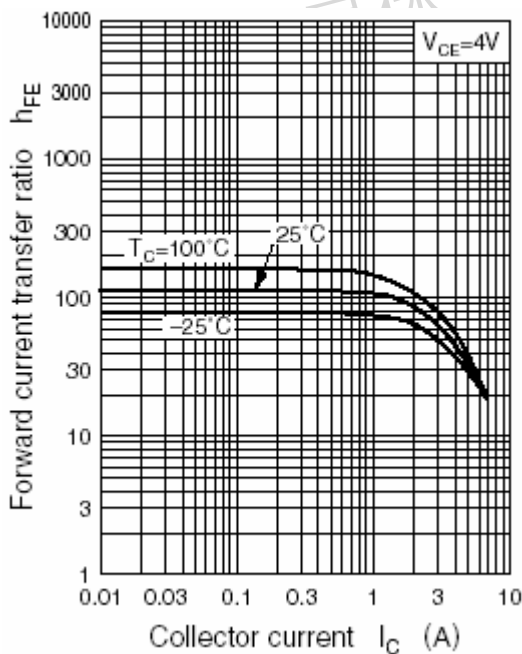


Fig.5 DC current Gain

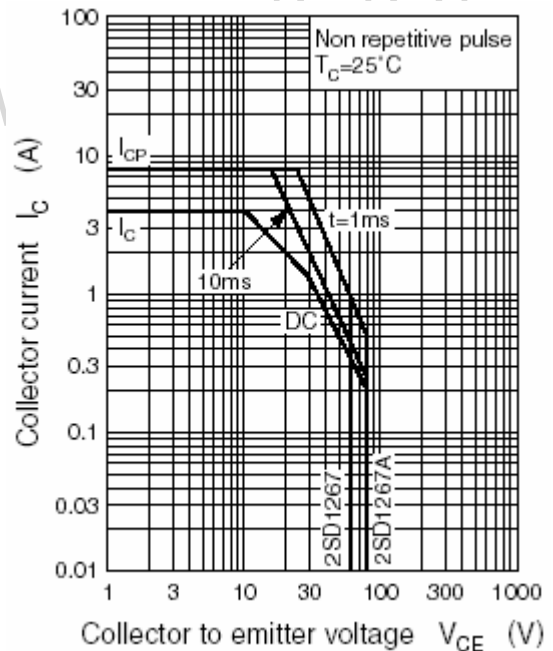


Fig.6 Safe Operating Area